December 19, 2003

Mr. J. I. Palmer, Jr., Regional Administrator
USEPA, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303

Dear Mr. Palmer:

As a requirement for continued participation in South Carolina's 8-Hour Ozone Early Action Compact, enclosed you will find the December 2003 Progress Report completed by participating counties and the South Carolina Department of Health and Environmental Control (DHEC). Enclosure 1 includes the report for DHEC and Enclosure 2 includes the report for each participating county, grouped by the following areas:

Appalachian: Anderson, Cherokee, Greenville, Oconee, Pickens, Spartanburg
Catawba: Chester, Lancaster, Union, York
Pee Dee: Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro
Waccamaw: Georgetown, Horry, Williamsburg
Santee Lynches: Clarendon, Kershaw, Lee, Sumter
Berkeley-Charleston-Dorchester: Berkeley, Charleston, Dorchester
Low Country: Beaufort, Colleton, Hampton, Jasper
Lower Savannah: Aiken, Allendale, Bamberg, Barnwell, Calhoun, Orangeburg
Central Midlands: Fairfield, Lexington, Newberry, Richland
Upper Savannah: Abbeville, Edgefield, Greenwood, Laurens, Saluda

The modeling and emissions inventory components of the early action process remain on schedule. Meetings continue to be held with local stakeholder groups to assist in determining the emission reduction strategies that will be included in the final local Early Action Plans due to EPA in March 2004. DHEC has requested assistance from EPA, Region 4 in determining emission reductions from proposed strategies.

Thank you for the assistance and support EPA has provided in this process. We look forward to continuing to work with EPA as we implement measures to achieve cleaner air sooner for South Carolina and our neighboring states. Should you have questions or desire additional information, please do not hesitate to contact Jim Joy, Chief of DHEC's Bureau of Air Quality at (803) 898-4123 or Henry Phillips of his staff at (803) 898-3260.

Sincerely,

R. Lewis Shaw, P.E.
Deputy Commissioner
Environmental Quality Control

Enclosures: 1. South Carolina DHEC December 2003 Progress Report
2. December 2003 Progress Reports for Participating Local Areas

cc: Kay Prince, EPA Region 4
County Officials (no attachments*)
Ron Methier, GA Dept. of Natural Resources (no attachments*)
Keith Overcash, NC Dept. of Environmental and Natural Resources (no attachments*)
EQC District Directors (no attachments*)

*All those not receiving attachments will be notified when materials are placed on website.

Statewide Initiatives and Emission Reduction Strategies

Early Action Compact Milestone December, 2003
List of Emission Reduction Strategies Under Consideration
Bureau of Air Quality – DHEC
State of South Carolina

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist South Carolina in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Ozone Forecast/Outreach and Education	The Division of Emissions, Modeling and Support develops a forecast for the 8-hour ozone standard. The forecast is for four areas within South Carolina. These areas include the Upstate, Central Midlands, Central Savannah River and Pee Dee. The Catawba area, including Chester, Lancaster and York counties is included in North Carolina's forecast through a cooperative partnership. A link for the Catawba forecast is included on DHEC's website. This year, 2003, was the first year that South Carolina forecasted for the Pee Dee area. The Division of Air Planning, Development and Outreach is responsible for disseminating the ozone forecast to interested individuals and groups across the state, primarily during the summer months. The forecast serves as a public health advisory to protect those persons who are most at risk to the effects of ozone.	Directionally Sound	Ongoing	Forecast Areas: Upstate area - Anderson, Oconee, Pickens, Greenville, Abbeville, Laurens, Greenwood, Spartanburg, Cherokee, and, Union counties. Central Midlands area – Newberry, Fairfield, Kershaw, Lexington, Richland, Calhoun, Kershaw, and, Sumter. Central Savannah River area – Allendale, Barnwell, Aiken, Saluda, Edgefield, and, McCormick. Pee Dee area – Lee, Darlington, Florence, and, Chesterfield
Support activities implemented by local areas participating in the EAC	SC has been and will continue to work with EPA to assist local areas in determining the emission reduction strategies that will assist the area in achieving emission reductions needed for attaining and maintaining the 8-hour ozone standard within their respective area. The Division of Air Planning, Development and	Directionally Sound	Ongoing	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
	Outreach continues to develop a Resource Guide for Air Quality Improvement that contains useful information to assist counties in planning for cleaner air sooner. This guide is a work-in-progress in which DHEC will continue to search for new information and ask that any information gathered and/or found by counties be shared so that it can be added and used for the benefit of everyone. This guide consists of informational text, pamphlets, hand-outs, useful websites, and other resources that will serve as a tool for county planning. Fact sheets have either been developed or revised to assist with understanding ozone, ozone monitoring and the ozone design value. Copies of these fact sheets were included in the June 2003 submittal. Forms for the milestones have been developed by the Division and provided to the participating areas to assist with the reporting aspect of the EAC. These forms were approved by EPA and were shared with other states involved in the EAP process.			
Open Burning	Revise the existing state regulation (R.61-62.2, Prohibition of Open Burning) to reduce statewide NOx/PM/CO emissions. The DHEC Board granted initial approval of the proposed regulation on October 9, 2003. An informational forum was held on November 24, 2003. Final approval by the DHEC Board will be requested January 8, 2004, for submittal to the state legislature.	Currently Evaluating	Promulgation should occur by June 2004. Implementation expected by 2005.	Statewide
South Carolina NOx Control Regulation	This proposed regulation is designed to help control the growth of NOx emissions statewide and focuses on sources currently not subject to NOx control requirements. This proposed regulation would apply to new NOx sources but would exempt units that are regulated by other NOx regulations with equivalent requirements. The DHEC Board granted initial approval of the proposed regulation on October 9, 2003. An informational forum was held on November 24, 2003.	Currently Evaluating (See Attachment 1)	Promulgation should occur by June 2004. Implementation expected by 2005.	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Measure under Consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
	Final approval by the DHEC Board will be requested January 8, 2004, for submittal to the state legislature.			
CAIGE	Develop, implement and market a plan for reducing ground-level ozone precursors by state government.	Voluntary efforts Directionally Sound	April 2005	Statewide
Smart Highways	A plan to ensure transportation plans, programs and projects consider statewide and local air quality goals. Certain aspects of the Transportation Conformity regulations may be incorporated into such a plan.	Not applicable		Statewide
Initiative to reduce NOx emissions from large facilities within South Carolina	Staff within the Bureau of Air Quality, have met with some of the "larger" facilities in South Carolina to negotiate NOx emissions through the permitting process. Those reductions will be made available once they are finalized.	Currently Evaluating	April 2005	Statewide
Tier 2 standards	Federal emission standard for passenger cars, light trucks, and larger passenger vehicles. Program designed to focus on reducing the emissions most responsible for the ozone and particulate matter impact from these vehicles, including NOx and VOCs.	Currently Evaluating (See Attachment 2)	Phase in period 2004-2007	Statewide
Low Sulfur	Program to reduce average gasoline sulfur levels nationwide	Currently Evaluating (See Attachment 2)	Phase in period 2004-2007	Statewide
NOx SIP Call	Federal Rule calling for SIP revision that requires sources in 17 states, including South Carolina to reduce summertime NOx emissions.	18 percent reduction in NOx (See Attachment 2)	2004	Statewide

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Estimated Reductions Achieved by NOx Control Standards from Uncontrolled Levels

Source Type	Control Technology and/or Emission Limit	Percent Reduction from Uncontrolled
Boilers and Water Heaters		
Natural Gas Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 30ppmv @ 3% O2 Dry (0.036 lb/mmBTU)	50%[1]
≥100mmBTU/hr	Low NOx Burners + Flue Gas Recirculation or equivalent technology capable of achieving 30 ppmv @ 3% O2 Dry (0.036 lb/mmBTU)	50- 60%[1]
Distillate Oil Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 0.15 lb/mmBTU	50%[1]
≥100mmBTU/hr	Low NOx Burners + Flue Gas technology capable of achieving 0.14 Recirculation or equivalent lb/mmBTU	60%[1]
Residual Oil Fired Boilers		
≥10mmBTU/hr and < 100mmBTU/hr	Low NOx Burners or equivalent technology capable of achieving 0.3 lb/mmBTU	50%[1]
≥100mmBTU/hr	Low NOx Burners + Flue Gas Recirculation or equivalent technology capable of achieving 0.3 lb/mmBTU	60%[1]

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Multiple Fuel Boilers	The emission limits for boilers burning multiple fuels are calculated in accordance with the formulas below. Additional fuels shall be addressed on a case-by-case basis.	
≥10mmBTU/hr and < 100mmBTU/hr	$E_n = [(0.036 \text{ lb/mmBTU } H_{np}) + (0.15 \text{ lb/mmBTU } H_{do}) + (0.3 \text{ lb/mmBTU } H_{ro}) + (0.35 \text{ lb/mmBTU } H_c) + (0.2 \text{ lb/mmBTU } H_w)]/(H_{np} + H_{do} + H_{ro} + H_c + H_w)$ where: E_n is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu) H_{np} is the heat input from combustion of natural gas, H_{do} is the heat input from combustion of distillate oil H_{ro} is the heat input from combustion of residual oil, H_c is the heat input from combustion of coal, H_w is the heat input from combustion of wood residue.	≈50%[1]
≥100mmBTU/hr	$E_n = [(0.036 \text{ lb/mmBTU } H_{np}) + (0.14 \text{ lb/mmBTU } H_{do}) + (0.3 \text{ lb/mmBTU } H_{ro}) + (0.25 \text{ lb/mmBTU } H_c) + (0.2 \text{ lb/mmBTU } H_w)]/(H_{np} + H_{do} + H_{ro} + H_c + H_w)$ where: E_n is the nitrogen oxides emission limit (expressed as NO_2), ng/J (lb/million Btu) H_{np} is the heat input from combustion of natural gas, H_{do} is the heat input from combustion of distillate oil H_{ro} is the heat input from combustion of residual oil, H_c is the heat input from combustion of coal. H_w is the heat input from combustion of wood residue.	≈60%[1]
Wood Residue Boilers		
All types	Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.20 lb/mmBTU	0-50%[2]
Coal Fired Stoker Fed Boilers		
< 250 mmBTU/hr	Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.35 lb/mmBTU	34%[3]

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

≥ 250 mmBTU/hr	Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.25 lb/mmBTU	53%[3]
Pulverized Coal Fired Boilers		
< 250 mmBTU/hr	Low NOx Burners + Combustion controls to minimize NOx emissions or equivalent technology capable of achieving 0.35 lb/mmBTU	50%[1]
≥ 250 mmBTU/hr	Low NOx Burners + Combustion controls to minimize NOx emissions + SCR or equivalent technology capable of achieving 0.14 lb/mmBTU	70%+[1]
Municipal refuse fired boilers		
< 250 mmBTU/hr	Combustion modifications to minimize NOx emissions + Flue Gas Recirculation or equivalent technology capable of achieving 200 ppmv @12% CO_2 (0.35 lb/mmBTU)	12%[3]
≥ 250 mmBTU/hr	Staged Combustion and Automatic Combustion Air Control + SCR or equivalent technology capable of achieving 0.18 lb/mmBTU	55%[3]
Internal Combustion Engines		
Compression Ignition	Timing Retard ≤ 4^o + Turbocharger w/ Intercooler or equivalent technology capable of achieving 490 ppmv @ 15% O_2 (7.64 gm/bhp-hr)	20-30%[1]
Spark Ignition	Lean Burn Technology or equivalent technology capable of achieving 1.0 gm/bhp-hr	87%[1]
Landfill or Digester Gas Fired	Lean Burn Technology or equivalent technology capable of achieving 1.25 gm/bhp-hr	≈50%[EST]

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

Gas Turbines		
Simple Cycle – Natural Gas		
< 50 Megawatts	Combustion Modifications (e.g. dry low-NOx combustors) to minimize NOx emissions or equivalent technology capable of achieving 25 ppmv @ 15% O_2 Dry (0.054 lb/mmBTU)	81%[4]
≥ 50 Megawatts	Combustion Modifications (e.g. dry low-NOx combustors) to minimize NOx emissions or equivalent technology capable of achieving 9.0 ppmv @ 15% O_2 Dry (0.033 lb/mmBTU)	84%[1]
Combined Cycle – Natural Gas		
< 50 Megawatts	Dry Low-NOx Combustors or equivalent technology capable of achieving 9.0 ppmv @ 15% O_2 Dry (0.033 lb/mmBTU)	84%[1]
≥ 50 Megawatts	Dry Low-NOx Combustors + SCR or equivalent technology Capable of achieving 3.0 ppmv @ 15% O_2 Dry (0.011lb/mmBTU)	94%[1]
Simple Cycle - Distillate oil combustion		
< 50 Megawatts	Combustion Modifications and water injection to minimize NOx emissions or equivalent technology capable of achieving 42 ppmv @ 15% O_2 Dry Basis (0.16 lb/mmBTU)	68%[1]
≥ 50 Megawatts	Combustion Modifications and water injection to minimize NOx emissions or equivalent technology capable of achieving 42 ppmv @ 15% O_2 Dry Basis (0.16 lb/mmBTU)	68%[1]
Combined Cycle - Distillate oil combustion		
< 50 Megawatts	Dry Low-NOx Combustors with water injection, or equivalent technology capable of achieving 42 ppmv @ 15% O_2 Dry Basis (0.16 lb/mmBTU)	68%[1]

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

≥ 50 Megawatts	Dry Low-NOx Combustors, water injection, and SCR or Equivalent technology capable of achieving 10.0 ppmv @ 15% O_2 Dry Basis (0.038 lb/mmBTU)	90%[1]
Landfill Gas Fired	Water or steam injection or low NOx turbine design or equivalent technology capable of achieving 25 ppmv @ 15% O_2 (0.097 lb/mmBTU)	48%[4]
Cement Kilns		
All	Low NOx Burner or equivalent technology capable of achieving a 30% reduction from uncontrolled levels	30%
Fluidized Bed Combustion (FBC) Boiler:		
Coal Fired	SNCR- Urea (Selective Noncatalytic Reduction - Urea) capable of achieving 0.07 lbs/mmBTU (51.8 ppm @ 3% oxygen)	75%[1]
Wood Fired	SNCR- Urea (Selective Noncatalytic Reduction - Urea) capable of achieving 0.07 lbs/mmBTU (51.8 ppm @ 3% oxygen)	55%[1]
Recovery Furnaces		
All	4th level or air to recovery furnace/good combustion practices or equivalent technology capable of achieving 100 ppm @8% oxygen	0-30%[5]
Lime Kilns		
All	Combustion controls or equivalent technology capable of achieving 175 ppm @ 10% oxygen	25%[3]
Fuel Combustion Sources Not Otherwise Specified: (Examples include but are not limited to process heaters, dryers, furnaces, ovens, duct burners, incinerators, and smelters)		

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

All	Low NOx Burners or equivalent technology capable of achieving 30 ppmv @ 3% O_2 Dry (0.036 lb/mmBTU)	0-60%[1]

[1] – EPA 456/F-99-066R "EPA Technical Bulletin – Nitrogen Oxides (NO_x), Why & How thet are Controlled", Nov. 1999.
[2] – EPA 453/R-94-022 "Alternative Control Techniques Document – NO_x Emissions from Industrial/Commercial/ Institutional Boilers", March 1994
[3] – Compared with emissions from EPA's AP-42 "Compilation of Air Pollutant Emission Factors"
[4] – EPA's "Emission Factor Documentation for AP-42 Section 3.1 Stationary Gas Turbines", April 2000
[5] - Information found on EPA's RACT/BACT/LAER Clearinghouse plus information found in the Willamette PSD permit review (SC).

Utility Reductions from EGUs in the NOx SIP Call

Utility	*1998 Emissions*[1] **(tons/day)**	*2007 Emissions* **(tons/day)**	*2012 Emissions* **(tons/day)**
Progress Energy	13.76	30.97	30.97
SCE&G	147.8	84.06	84.06
Santee Cooper	151.65	21.34	30.97
Duke Power	17.21	13.70	13.70
Total	330.42 tons/day	150.07	159.70
Reduction from 1998 Levels	-	54.6%	51.7%

[1]- Emission data represents modeling episode only.

Note: Data is for the EGU units under the NOx Trading Program Only.

Reductions from Tier II and Low Sulfur Fuel Regulatory Changes

(For May 1998 Episode & Future Years Using Mobile6 Model)

Year	Mobile On-Road Emissions (tons/day)	% Reduction from 1998 Levels
1998	345	-
2007	153	55.6%
2010	128	62.9%
2012	116	66.3%

Refer to the December 2003 Progress Reports submitted by individual areas for additional activities.

These are the Draft Plans of Emission Reduction Strategies for the Pee Dee Region submitted for the December 10, 2003 Early Action Compact Milestone.

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Chesterfield County

According to the latest 8-hour ozone monitoring data, Chesterfield County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Chesterfield County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. Chesterfield County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Air Quality Contact	One person will be identified as the Air Quality Contact. At a minimum, this contact will be responsible for ozone education/outreach and dissemination of ozone forecast.	*Not available*	March 2003	County wide
Support state-wide efforts	Chesterfield County will support the efforts of SC DHEC regarding state-wide emission reduction strategies.	Not available		County wide

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Darlington County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Darlington County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Ozone Action Coordinator	A county staff person responsible for dissemination of ozone forecasts	Not available	March 5, 2003	County wide
County Ozone Committee	County Department Heads and the Ozone Action Coor. Are developing for implementation, a countywide Ozone Reduction Plan. The plan will be made available to local business and industry for possible adoption for their programs. Plan preparations will continue thru out the year in preparation for the up coming 2004 season.	Not available	April 15, 2003	County wide
Use of Bio-Diesel/ Alternative Fuels	Convert our diesel fleet to Bio-Diesel and low sulfur fuels.	Currant data shows we can expect a 20% decrease in emissions by using this product. We estimate by last years usage we will use 123,272 gallons of fuel in the up coming budget year. The alternative fuel has been in use for the last six months with no harmful effects to the vehicles. Darlington County will continue the use of the product.	July 1, 2003 December 5, 2003	County wide
Reduction of Idling or No-Idle Policy for county vehicles	Department Heads will develop and implement interdepartmental plans to reduce or eliminate idling time on vehicle and maintenance equipment. The county departments are in the process of writing the policies at this time. The plan should be ready for the 2004 ozone season.	Not available	July 1, 2003 December 5, 2003	County wide
Stricter controls of Illegal/Unauthorized outdoor burning.	Darlington County's Code Enforcement, Fire District, Emergency Services and Sheriff's Department will work in combination with State Agencies to develop this action. Information collected on this issue will be forwarded to Darlington County Council for consideration involving this issue.	Not available	July 1, 2003 December 5, 2003	County wide
Fleet Replacement	Darlington County's Materials Manager and Vehicle Maintenance Contractor will develop a plan to purchase replacement vehicles. Future RFP's should place priority on vehicle and equipment with the latest emission reduction	Not available	July 1, 2003	County wide

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
	standards.			
Community Awareness and Education	Awareness and Education will include public speaking, distribution of educational materials and increase media alerts promoting clean air. The Darlington County School Superintendent will be contacted and requested to encourage the teachers in this county to participate in training classes provided by the SC DHEC Air Quality Bureau, and include the information in the school curriculum.	Not Available	**March 30, 2003** Robbin Brock spoke at the Joint City/County meeting in Hartsville; Representatives from the town of Lamar and Society Hill, the cities of Hartsville and Darlington and the County of Darlington were present. Senator Gerald Molloy and Representative Jay Lucus were also in attendance. An ozone awareness presentation was done, followed by a lengthy discussion on the potential negative economic impact non-attainment could cause. **April 14, 2003** A presentation was done for Sonoco Products on Ozone Awareness. **May 14, 2003** Darlington County Ozone Steering Committee task the Emergency Services staff to produce a three-page brochure with Ozone information specific for Darlington County.	County wide

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
			August 1, 2003 The brochure was sent to the printers and is now available for distribution. **December 3, 2003** The county ozone staff attended a training meeting at SC DHEC Air Quality Bureau. The new programs will be forwarded to the school district for consideration for the county school curriculum. First contact will be made around January 2, 2004.	
Energy Conservation	Energy conservation plans will be developed that directs county departments to reduce the overall yearly energy usage by 5-10%. Our currant data shows 5,932,976 kwh used, a 5% reduction will be 296,648 kwh.	Not available	July 1, 2003	County wide
Restrict or change the time of use of landscaping and lawn mowing equipment	County Department Heads will receive daily ozone alerts from the Ozone Action Coordinator, on days with high alerts these activities are being rescheduled.	Not available	May 1, 2003	County wide
Reduction in unnecessary use of on-road vehicle use and conservation of fuel.	County Department Heads will monitor vehicle and fuel usage on high alert days and decrease departmental use as much as possible.	Not available	May 1, 2003	County wide
Promote and encourage employees to eat in or carpool for meals during work hours.	Provide employees with facilities to eat in during working hours and flexible lunch hours to encourage carpooling for meals.	May 15, 2003 we conducted a multi-departmental survey to determine the effects of this measure. 83 out of 100 employees who were ark to take part in the survey	February 12, 2003	County wide

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
		returned the survey. We found that by providing facilities (exam. break rooms or kitchens) and flexible lunch hours 52% of the employees are eating meals in with an estimated savings of 9,900 vehicle miles traveled yearly. The average mileage for one employee was 3.14 miles per meal		

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Dillon County

According to the latest 8-hour ozone monitoring data, Dillon County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Dillon County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. Dillon County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Air Quality Contact	One person will be identified as the Air Quality Contact. At a minimum, this contact will be responsible for ozone education/outreach and dissemination of ozone forecast. (Robert Abson)	Not available	March 2003	County wide
Support state-wide efforts	Dillon County will support the efforts of SC DHEC regarding state-wide emission reduction strategies.	Not available		County wide

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Support SCDHEC Statewide efforts to reduce ground-level ozone in Florence County.	Develop steering committee to support and participate in developing action items and emission reduction efforts in order to satisfy requirements of Early Action Compact.		On-going	
Designate an Ozone Action Coordinator	Designate a representative who will be responsible for coordination of county ozone programs.		3rd QTR, 2004	
Work with Owners/ Operators of major vehicle fleets to reduce NOx and VOC emissions.	Identify owners/operators of major fleet vehicle pools in Florence Co. Catalog the number and type of fleet vehicles and fuel used.		4th QTR, 2003	
	Encourage the adoption of "no-idling" policies by owners/operators where feasible. Encourage fleet maintenance to ensure that vehicular emissions remain within manufacturer's standards.		1st QTR, 2004	
	Encourage the replacement of older vehicles with vehicles that are more fuel-efficient and with lower emissions.		1st QTR, 2004	
	Encourage fleet operators to constantly review routing and scheduling to maximize efficiency and reduce fuel consumption.		On-going	
	Encourage fleet operators to install vapor recovery equipment at their central fueling stations.		4th QTR, 2004	
	Evaluate alternatives for fueling vehicles after 6:00 PM.		3rd QTR, 2004	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Reduce emissions from open burning.	Evaluate changes to county and municipal ordinances to minimize emissions from outdoor burning. Coordinate with state agencies to ensure state requirements are satisfied.		2nd QTR, 2004	
Work with electric and natural gas utilities to perform energy audits on all public facilities.	Determine current energy consumption patterns in public and institutional facilities and establish baseline data. Perform energy audits.		2nd QTR, 2004	
	Encourage governments in Florence County to educate their employees on day-to-day energy conservation measures.		1st QTR, 2004	
	Set energy reduction goals and monitor progress toward satisfying targets.		3rd QTR, 2004/ongoing	
Encourage golf courses utilizing gasoline powered carts and maintenance equipment to switch to electric or newer, more efficient gasoline powered carts and equipment.	Generate inventory of gasoline powered carts and equipment. Monitor and report replacement of existing carts and equipment with electric carts or newer, more fuel efficient and lower emission gasoline powered carts and equipment.		3rd QTR, 2004	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Evaluate potential for "Park and Ride" Program.	Coordinate with SC DOT and Pee Dee Regional Transportation Authority officials to evaluate options for "Park and Ride" and other mass transit opportunities.		4th QTR, 2004	
Encourage car pooling to work in Florence County.	Encourage major employers in the county to implement car pooling. Evaluate "preferred parking" and other incentive programs.		4th QTR, 2004	
Evaluate the potential for city and county to re-schedule heavy equipment operations on forecasted high ozone days.	Investigate impact of re-scheduling mowing, construction and other heavy equipment operations on forecasted high ozone alert days.		2nd QTR, 2004	
Investigate the availability of "green power" and encourage local businesses and governments to adopt.	Evaluate availability of "green power" in Florence County. Work with local utilities to evaluate alternatives.		2nd QTR, 2004	
	Document consumption of "green power" in order to quantify emission reductions.		3rd QTR, 2004	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Reduce emissions from over-the-road vehicles that idle for extended periods at truck stops and rest areas.	Work with truck stop owners and SCDOT to investigate the feasibility of installing electrical hookups for over the road vehicles at truck stops and rest areas.		3rd QTR, 2004	
Gasoline can trade-out program.	Conduct annual "Trade-it-In for Cleaner Air" day where citizens can trade-in-their old gasoline cans for the newer, "spill proof" variety. Work with landscaping and lawn maintenance firms in the county to encourage utilization of the larger "spill proof" fuel containers.		4th QTR, 2004	
Utilize Public access and commercial television stations as forums for disseminating information about the impacts of ground-level ozone.	Develop and disseminate a 30-second or 60-second "public service" spot for airing on local and regional television.		2nd QTR, 2004	
	Place "rolling messages" on the government access channel.		1st QTR, 2004	
	Develop and air documentary explaining concerns from ground-level ozone and suggested actions and modifications to help reduction level.		2nd QTR, 2004	
	Work with local media (radio, television and newspaper) to post daily ozone forecasts as part of local weather reports.		2nd QTR, 2004	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Make presentations to local civic clubs, businesses, and government councils and agencies regarding impacts of ground-level ozone.	Develop power point slide presentation which outlines issues surrounding ground-level ozone and Early Action Plan. and make presentations to various groups.		4th QTR, 2003 & 1st QTR, 2004	
	Schedule presentations with the various groups identified within the City and County.		1st QTR, 2004	
Work with SCDHEC to obtain brochures and other educational materials for education to the community.	Distribute brochures and other educational materials to the various groups.		1st QTR, 2004	
Generate on-going coverage by local/regional newspapers, magazines, association letters, etc. regarding ground-level ozone issues.	Develop narrative about the issues surrounding ozone problem for distribution to local newspapers.		1st QTR, 2004	
	Develop narrative about the issues surrounding ozone problem for distribution to business in company newsletters.		1st QTR, 2004	

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Florence County

Based on stakeholder consultation and taking into consideration resource and political constraints, the following control measures under consideration can be reasonably implemented. It is anticipated these measures under consideration will assist Florence County in achieving and/or maintaining the 8-hour ozone standard by 2007 and beyond.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Work with Florence County School Districts to educate teachers and students regarding ground-level ozone issues.	Distribute brochures and give presentations to students/teachers as part of educational process to inform students of issues surrounding ground-level ozone.		2nd QTR, 2004	

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List of Emission Reduction Strategies Under Consideration

MARLBORO COUNTY, SC

According to the latest 8-hour ozone monitoring data, Marlboro County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Marlboro County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. Marlboro County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Measure under consideration	**Detailed description of measure**	**Current assessment of emission reductions**	**Proposed date for implementation**	**Geographic area and/or local government**
Air Quality Contact	One person, Gray Bostick, has been identified as the Air Quality Contact. At a minimum, Mr. Bostick will be responsible for ozone education/outreach and dissemination of ozone forecast.	Not available	March 2003	County wide
Support state-	Marlboro County will support the efforts of SC	Not available	Ongoing	County wide

wide efforts	DHEC regarding state-wide emission reduction strategies.			
Fleet management	Marlboro County will consider alternative fueled and hybrid vehicles in the replacement of county fleet vehicles when appropriate.	Not available	Fiscal Year 2003-2004	County wide
County Bid Proposal Process	Marlboro County will give preference to companies that use environmentally "friendly" equipment on county projects.	Not available	Fiscal Year 2003-2004	County wide
Education	Marlboro County will work with the local school district to encourage the use of the "Action for a Cleaner Tomorrow" curriculum	Not available	School Year 2003-2004	County wide
Corporate cooperation	Marlboro County will seek to create partnerships with local businesses and industries in an effort to increase awareness of air quality concerns.	Not available	Ongoing	County wide
Corporate sponsorships	Marlboro County will encourage local businesses and industries to provide financial support to those striving for improved air quality.	Not available	Ongoing	County wide

Early Action Compact Milestone - December 2003
List of Emission Reduction Strategies Under Consideration

Marion County

According to the latest 8-hour ozone monitoring data, Marion County should remain attainment for the 8-hour ozone standard. However, in an effort to assist other areas in South Carolina and in the interest of public health and the environment, in December 2002, Marion County agreed to participate in the 8-hour ozone early action process. Therefore, based on stakeholder consultation and taking into consideration resource and political constraints, the following emission reduction strategies remain under consideration. Marion County will continue to evaluate the air quality within the county and may implement one or more of the following measures under consideration.

Measure under consideration	Detailed description of measure	Current assessment of emission reductions	Proposed date for implementation	Geographic area and/or local government
Air Quality Contact	An Ozone Action Coordinator has been named. Douglas Page, Ozone Coordinator 843-423-8234	Not available	March 2003	County wide
Fleet Management	Future purchase of vehicles with highest emission standards	Not available	April 2005	County wide
Fuels	Use of alternative fuels whenever possible	Not available	April 2005	County-wide

Reduce VMT	Eliminate travel by county vehicle whenever possible	Not available	April 2005	County-wide
Re-fueling	“No-Topping Off” policy for county vehicles	Not available	April 2005	County-wide
Energy Consumption	Seek to reduce energy use in county buildings	Not available	April 2005	County-wide
Lawn Maintenance	Rescheduling of mowing times whenever possible	Not available	April 2005	County-wide
Idling	Implement policy reducing idling time for county vehicles	Not available	April 2005	County-wide
Education	Distribute ozone education brochures, periodic public awareness advertisements will be issued	Not available	April 2005	County-wide
Open burning	Code enforcement of illegal burning laws	Not available	April 2005	County-wide